

**ABSTRACT OF THE DISCLOSURE****EUKARYOTIC CELLS AND METHOD FOR PRESERVING CELLS**

5 A dehydrated composition is provided that includes freeze-dried eukaryotic cells. The eukaryotic cells are loaded with an oligosaccharide (e.g., trehalose) which preserves biological properties during freeze-drying and rehydration. The oligosaccharide loading is conducted at a temperature of from greater than about 25°C to less than about 50°C, more preferably at about 35°C, with the loading solution having the oligosaccharide in an amount from about 10 mM to  
10 about 100 mM. These freeze-dried eukaryotic cells are rehydratable. A process for preserving and/or increasing the survival of dehydrated eukaryotic cells, including storing dehydrated eukaryotic cells having a residual water content greater than about 0.15 gram of water per gram of dry weight eukaryotic cells.